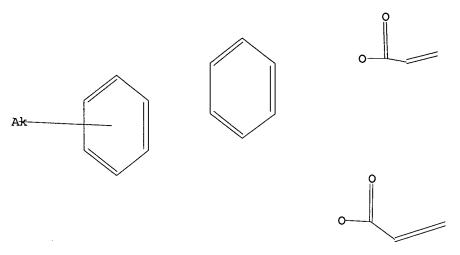
Uploading C:\Program Files\Stnexp\Queries\516g.str

L3'0 STRUCTURE UPLOADED

=> dL30 HAS NO ANSWERS



Structure attributes must be viewed using STN Express query preparation.

=> s 130

REG1stRY INITIATED

Substance data SEARCH and crossover from CAS REGISTRY in progress... Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.

SAMPLE SEARCH INITIATED 14:40:49 FILE 'REGISTRY' SAMPLE SCREEN SEARCH COMPLETED - 2446 TO ITERATE

81.8% PROCESSED 2000 ITERATIONS INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

> **COMPLETE** BATCH

50 ANSWERS

PROJECTED ITERATIONS: 45954 TO 51886 PROJECTED ANSWERS: 15645 TO 19185

L31 50 SEA SSS SAM L30

44 L31

=> s 1328 and py<1999

L328 NOT FOUND

The L-number entered could not be found. To see the definition of L-numbers, enter DISPLAY HISTORY at an arrow prompt (=>).

=> s 132 and py<1999

19111731 PY<1999

3 L32 AND PY<1999

=> d 1-3 ibib abs hitstr

L33 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2006 ACS on STN 1947:9758 CAPLUS ACCESSION NUMBER: DOCUMENT NUMBER: 41:9758 ORIGINAL REFERENCE NO.: 41:1992f-i,1993a-e Chemical reactions of mustard gas and related TITLE: compounds. II. The reaction of mustard gas with carboxyl groups and with the amino groups of amino acids and peptides Moore, Stanford; Stein, Wm. H.; Fruton, Joseph S. AUTHOR (S): CORPORATE SOURCE: Rockefeller Inst. Med. Research, New York, NY SOURCE: Journal of Organic Chemistry (1946), 11, 675-80 CODEN: JOCEAH; ISSN: 0022-3263 DOCUMENT TYPE: Journal LANGUAGE: Unavailable The physiol. effect of I is the consequence of chemical reactions of I or its decomposition products with body constituents. The reaction of I with CO2H and NH2 groups in NH2 acids and peptides is therefore studied. When I is allowed to react with Na salts of organic acids, esters of II are formed. When a mixture of 4 millimols. (mM.) I and 16 mM. AcONa in 25 cc. H2O is shaken 24 hrs. at 20-5°, 40% S(CH2CH2OAc)2 (XII) (cf. Helferich and Reid, C.A. 14, 2486) (p-tolyl sulfilimine, crystals from C6H6, m. 116-17.5°), is formed; with 60 mM. NaOAc the yield of XII is 80%. I and 16 mM. C17H35CO2Na under the same conditions give 50% S(CH2CH2O2CC17H35)2. I and 8 mM. tri-Na citrate or di-Na succinate give 60% of the resp. acidic esters which cannot be extracted from neutral or alkaline solns. with ether. I and 16 mM. Na diethylbarbiturate give 60% diveronal ester of II, crystals from EtOH, m. 148-9°. I and 16 mM. Na hippurate in 50 cc. 50% Me2CO give 40% dihippurylthiodiglycol, crystals from EtOH, m. 119°. I and 16 mM. Na salicylate give 45% disalicylthiodiglycol, m. 74-5°. To study the influence of structural differences between the various compds. having a CO2H group, the reaction of I with hippuric acid (XIII), acetyldehydrophenylalanine (XIV), and acetyldehydrophenylalanyldehydrophenylalanine (XV) is investigated. When 4 mM. I is shaken 48 hrs. with the Na salts of XIII, XIV, and XV in the presence of 12 mM. NaHCO3 in 25 cc. H2O at 25°, 37% ester of XIII, 35% ester of XIV, and 28% ester of XV are formed. NaHCO3-buffered solns., I reacts with the NH2 group in glycine (XVI), alanine (XVII), lysine (XVIII), glycylglycine (XIX), and benzoyllysinamide (XX) and the extent of the reaction is measured by the decrease in NH2-Naccording to the Van Slyke method. With 4 mM. I, 16 mM. XVI, and 8 mM. NaHCO3 the decrease in NH2-N is 1.3 mol. equivs.; with 8 mM. XVII and 12 mM. NaHCO3, 1.0 mol. equivalent; with 8 mM. XVIII in a neutral solution, 1.8 mol. equivs.; with 16 mM. XIX and 8 mM. NaHCO3, 2.5 mol. equivs.; and with 0.19 mM. I, 0.22 mM. XX, and 0.8 mM. NaHCO3, 0.03 mol. equivalent With XVI and XIX in the absence of NaHCO3 the NH2 group does not react with I. In these reactions either secondary amines or thiazanes may be formed. $\epsilon\text{-NH2}$ in XX reacts to a lesser extent than does the $\alpha\text{-NH2}$ group. I reacts with pyridine to give 83% bis(2-pyridiniumethyl) sulfide dichloride, very hygroscopic crystals from absolute EtOH-ether (dipicrylsulfonate, crystals from 90% XI, m. 216-18°). When 7.3 g. nicotinamide (XXI), 5.05 g. NaHCO3, and 1.9 g. I in 150 cc. H2O are shaken 20 hrs. at room temperature and the solution is evaporated to dryness in vacuo, a residue is obtained which is extracted with hot absolute EtOH. The undissolved residue is taken up in 10 cc. H2O, acidified with HCl, and evaporated to dryness. The last traces of H2O are removed by repeated distillation with EtOH and the residue recrystd. from absolute Me2CO, giving 0.8 g. dichloride of the XXI derivative, pink crystals, m. 151-3°. I and Na nicotinate give 95% "onium" compound On heating with H2O 1 hr. at 100° only a slight increase in acidity occurs, indicating that not more than 1% of the "onium" compound can be sulfonium salts.

IT 856178-97-7, Cinnamic acid, α -(α -acetamidocinnamamido)-, ester (di-) with 2,2'-thiodiethanol (preparation of)

RN 856178-97-7 CAPLUS

CN Cinnamic acid, α -(α -acetamidocinnamamido)-, ester (di-) with 2,2'-thiodiethanol (5CI) (CA INDEX NAME)

PAGE 1-B

= CH- Ph

RN

CN

859085-60-2 CAPLUS

INDEX NAME NOT YET ASSIGNED

L33 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2006 ACS on STN ACCESSION NUMBER: 1932:25962 CAPLUS DOCUMENT NUMBER: 26:25962 ORIGINAL REFERENCE NO.: 26:2735e-i Chromone group. V. Chromones derived from TITLE: 2-phenylacetyl-1-naphthol and 2-β-phenylpropionyl-1-naphthol AUTHOR (S): Cheema, Ujagar S.; Venkataraman, Krishnasami SOURCE: Journal of the Chemical Society, Abstracts (**1932**) 918-25 CODEN: JCSAAZ; ISSN: 0590-9791 DOCUMENT TYPE: Journal LANGUAGE: Unavailable OTHER SOURCE(S): CASREACT 26:25962 PhCH2CO2H (24 g.), (PhCH2CO)2O (38 g.) and cf. C. A. 26,727. αC10H7OH (20 g.) with 10 g. ZnCl2, heated 1 hr. at 150°, give 17 g. 2-phenylacetyl-1-naphthol (I), pale yellow, m. 96°; in the absence of the anhydride the yield was 11 g.; Ac derivative, m. 109°; Bz derivative, m. 161°; 2,4-dinitrophenylhydrazone, bright orange, m. 252°. 1,2-C10H6(OH)COCH2CH2Ph (11), m. 99°; acetate, m. 91°; benzoate, m. 88°; 2,4-dinitro-phenylhydrazone, deep orange, m. 223-4°. II and HCO2Et in Et2O with Na give a mixture of 3-benzyl-1,4- α -naphthopyrone (III), m. 149°, and 2-hydroxy-3-benzyl-2,3-dihydro-1,4- α -naphthopyrone (IV), 172°; IV, boiled with 20% H2SO4, gives III; fusion with 50% KOH gives quantitatively II. III has a bright bluish green fluorescence in H2SO4; boiling AcOH gives a blue fluorescence but no color on addition of H2SO4. I, Ac2O and AcONa, refluxed 8 hrs., give 3-phenyl-2-methyl-1,4- α -naphthopyrone, m. 203-4°; Bz2O gives the 2,3-di-Ph derivative, cream, m. 206-7°. II, AC2O and AcONa give the 3-benzyl-2-methyl derivative, m. 139°; Bz20 gives 3-benzyl- α -naphthoflavone, pale cream, m. 187°. I, (PhCH:CH)20 and PhCH:CHCO2Na give 3-phenyl-2-styryl-1,4-α-naphthopyrone, pale cream, m. 262-3°; II gives the 3-benzyl derivative, m. 223°. Dry HCl passed into a cooled mixture of $\alpha\text{-C10H7OH}, \text{ PhAcCHCN}$ and ZnCl2 in Et2O give 3-phenyl-4-methyl-1,2- α -naphthopyrone, m. 212°; the 3- $\bar{A}c$ derivative, m. 147°, results from refluxing 2,1-AcC10H6OH, PhCH2CH2CO2Na and Ac2O for 30 hrs. 2,1-BzCl0H6OH, Ac2O and AcONa give the acetate, m. 118°; PhCH2CO2Na in place of AcONa gives 3,4-diphenyl-1,2- α -naphthopyrone, pale yellow, m. 237° . 859085-60-2, Chromone, 5,7-dihydroxy-2-(p-methoxystyryl)-, bis (p-methoxycinnamate) (preparation of)

L33 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1923:8209 CAPLUS

DOCUMENT NUMBER: 17:8209

ORIGINAL REFERENCE NO.: 17:1469g-i,1470a

TITLE: Aldehyde derivatives of rhodanines and their fission

products. II Gendelman, Leon

AUTHOR(S): Gendelman, Leon SOURCE: Monaish. (1923), 43, 537-43

DOCUMENT TYPE: Journal LANGUAGE: Unavailable

cf. Andreasch, C. A. 13, 1833. Isopropylthiol-cinnamic acid, Me2CHC6H4CH:C(SH)CO2H, is obtained by the action of AmONa upon $\beta\text{-cuminal}\text{rhodanine}$ in AmOH as small yellowish needles, and is transformed into the disulfide, C24H26O4S2 by alc. I, yellow needles, m. 190°. β-p-Chlorobenzal-γ-phenyl rhodanine, from phenylrhodanine and ClC6H4CHO, yellow needles, m. 148°. Fission with Ba(OH)2 gives p-chlorothiolcinnamic acid, yellowish white needles, m. 157°. β -p-Chlorobenzalthiohydantoin, yellow needles, sinter 230° but do not m. β -p-Toluylidene- γ -phenylrhodanine, yellow needles, m. 136°. p-Methylthiolcinnamic acid, fine yellow needles, m. 159°. Disulfide, fine yellow needles, m. 212°. Methylbenzylthiocinnamic acid, MeC6H4CH:C(SC7H7)CO2H, small, pale yellow needles, m. 134°. β -3,4-Dihydroxybenzalrhodanine, yellowish brown powder, does not m. 270°. The alkaline solution is reddish violet, the acid, yellow. Attempts to prepare a thiol derivative failed. γ -Camphyl- rhodanine (A), thick, reddish yellow oil. The bensal compound forms bright yellow needles, m. 49-50°. β -Dimethxylaminobenzal compound, orange-red needles, m. 129°. Camphylrhodanine-2-indolindigo, from A and isatin, dark red qlistening needles. β-m-Nitrobenzal compound of A, pale yellow needles, m. 126°.

861620-58-8, Cinnamic acid, α,α' -dithiobis[p-isopropyl-

(preparation of) 861620-58-8 CAPLUS

IT

RN

CN Cinnamic acid, α,α' -dithiobis[p-isopropyl- (2CI) (CA INDEX NAME)

=> s' 130 full

REG1stRY INITIATED

Substance data SEARCH and crossover from CAS REGISTRY in progress... Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.

FULL SEARCH INITIATED 14:41:55 FILE 'REGISTRY' FULL SCREEN SEARCH COMPLETED - 48211 TO ITERATE

100.0% PROCESSED 48211 ITERATIONS (5 INCOMPLETE) 16441 ANSWERS

SEARCH TIME: 00.00.05

L34 16441 SEA SSS FUL L30

L35 12044 L34

=> s 135 and py<1999

19111731 PY<1999

6978 L35 AND PY<1999

=> s 136 and polymerizable

26219 POLYMERIZABLE

950 L36 AND POLYMERIZABLE

=> s 137 and mesogenic

5704 MESOGENIC

18 L37 AND MESOGENIC

=> d 1-10 ibib abs hitstr

L38 ANSWER 1 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1998:816433 CAPLUS

DOCUMENT NUMBER:

INVENTOR(S):

130:66884

TITLE:

Polymerizable, optically active dioxolane

diesters and liquid crystalline polymers

Buchecker, Richard; Lukac, Teodor; Schmitt, Klaus;

Villiger, Alois

PATENT ASSIGNEE(S): Rolic A.-G., Switz. SOURCE: PCT Int. Appl., 31 pp.

CODEN: PIXXD2 DOCUMENT TYPE:

Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PA:	TENT :	NO.			KIN	D :	DATE		_		ICAT				D	ATE	
WO	9855	473			A1	_	1998	1210							1:	9980!	 529 <
	W:	ΑL,	AM,	AT,	AU,	ΑZ,	BB,	BG,	BR,	BY,	CA,	CH,	CN,	CU,	CZ,	DE,	DK,
-							GH,										
		KR,	ΚZ,	LC,	LK,	LR,	LS,	LT,	LU,	LV,	MD,	MG,	MN,	MW,	MX,	NO,	NZ,
		PL,	PT,	RO,	RU,	SD,	SE,	SG,	SI,	SK,	SL,	TJ,	TM,	TR,	TT,	UA,	UG,
		US,	UΖ,	VN,	ΥU,	ZW,	AM,	ΑZ,	BY,	KG,	ΚZ,	MD,	RU,	ТJ,	TM		
	RW:	GH,	GM,	KΕ,	LS,	MW,	SD,	SZ,	UG,	ZW,	AT,	BE,	CH,	CY,	DE,	DK,	ES,
		FI,	FR,	GB,	GR,	ΙE,	LU,	MC,	NL,	PT,	SE,	BF,	ВJ,	CF,	CG,	CI,	CM,
							SN,										
															1:	9980	529 <
	9882						2000	0329	1	EP 1:	998-9	9206	90		1:	9980	529
EP	9882						2002										
						GB,	IT,	LI,	NL,	SE,	FI						•
	2002						2002	0402		JP 19	999-!	5019	34		19	9980	529
US	6120	859			Α		2000	0919	τ	JS 19	999-4	1517	54		19	9991	201
	1023				· A1	. :	2002	1004	I	HK 20	000-3	1027	16		20	0000	504
PRIORITY	APP	LN.	INFO	. :]	EP 19	997-:	10874	15	7	A 19	99706	502

CN

$$W^{1-S^{1-Y^{1-M}}} \xrightarrow{O} COOR^{1}$$

$$COOR^{2}$$

AB Polymerizable optically active compds. having general structure

I [W1 = CH2:CH, CH2:CHPh, CH2:CHCO2, CH2:C(CH3)CO2, CH2:C(Cl)CO2,
CH2:C(Ph)CO2, CH2:CHCO2C6H4, CH2:CHCONH, CH2:CHCON(CH3), CH2:C(CH3)CONH,
CH2:C(CH3)CON(CH3), CH2:C(Cl)CONH, CH2:C(Ph)CONH, CH2:CHO, CH2:CHOOC,
PhCH:CH, epoxy; S1 = C2-20 alkylene (substituted) by F, Cl, CN or
interrupted by O, COO, CH:CH, C≡C, NH, NHCO, CONH; Y1 = single bond,
O, COO, OCC, OCOO, S, CONH, NHCO; M = divalent mesogenic group;
R1, R2 = C≤8 alkyl] are synthesized and polymerized to provide
cholesteric liquid crystal layers which are in color filters.

IT 217651-71-3P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (polymerizable, optically active dioxolane diesters and liquid crystalline polymers)

RN 217651-71-3 CAPLUS

1,3-Dioxolane-4,5-dicarboxylic acid, 2-[4'-[[6-[(1-oxo-2-propenyl)oxy]hexyl]oxy][1,1'-biphenyl]-4-yl]-, dibutyl ester, (4R,5R)-, polymer with 2-chloro-1,4-phenylene bis[4-[[6-[(1-oxo-2-propenyl)oxy]hexyl]oxy]benzoate], 2-methyl-1,4-phenylene bis[4-[[6-[(1-oxo-2-propenyl)oxy]hexyl]oxy]benzoate] and pentyl 2,5-bis[[4-[[6-[(1-oxo-2-propenyl)oxy]hexyl]oxy]benzoyl]oxy]benzoate (9CI) (CA INDEX NAME)

CM 1

CRN 217651-57-5 CMF C34 H44 O9

Absolute stereochemistry.

$$\begin{array}{c} \text{CH}_2 \\ \text{N-BuO} \\ \text{R} \\ \text{O} \end{array}$$

CM 2

CRN 185993-72-0 CMF C44 H52 O12

$$H_2C = CH - C - O - (CH_2)_6 - O$$

Me - (CH₂)₄ - O - C

O - O - O - C

PAGE 1-B

CM 3

CRN 150809-90-8 CMF C38 H41 Cl O10

PAGE 1-A

PAGE 1-B

CM 4

CRN 125248-71-7 CMF C39 H44 O10

PAGE 1-A

REFERENCE COUNT:

THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L38 ANSWER 2 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN

2

ACCESSION NUMBER: 1998:709154 CAPLUS

DOCUMENT NUMBER: 129:337983

TITLE: Preparation of polymerizable liquid-crystal

compounds, compositions containing them, and their

uses

INVENTOR(S): Schuhmacher, Peter; Meyer, Frank; Etzbach, Karl-Heinz;

Siemensmeyer, Karl

PATENT ASSIGNEE(S): BASF Aktiengesellschaft, Germany

SOURCE: PCT Int. Appl., 93 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

LANGUAGE:

Patent German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA'	TENT I	. 00			KINI)	DATE	}	AP:	PLICAT	'ION I	NO.		D	ATE		
						-								-			
WO	9847	979			A1		1998	1029	WO	1998-	EP22	82		1:	9980	117	<
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	RW:	ΑT,	BE,	CH,	CY,	DE,	, DK,	ES,	FI, F	R, GB,	GR,	ΙE,	IT,	LU,	MC,	NL,	
		PT,										-	-		-	·	
DE	1971	6822			A1		1998	1029	DE	1997-	1971	6822		1	9970	122	<
EP	9778	22			A1		2000	0209	EP	1998-	9214	64		1.	9980	117	
	R:	CH,	DE,	GB,	LI,	NL											
JP	2001	5215	38		T2		2001	1106	JP	1998-	5449	96		1	9980	117	
PRIORIT	Y APP	LN.	INFO	. :					DE	1997-	1971	6822	Į	1	9970	122	
									WO	1998-	EP22	82	V	V 1	9980	117	

OTHER SOURCE(S): MARPAT 129:337983

The invention relates to a method for producing liquid-crystal compds. of the formula P1Y1A1OMOA2Y2P2 or mixts. of such compds., where P1, P2 = H, C1-4 alkyl, or reactive radicals by means of which polymerization can be induced; Y1, Y2 = single bond, O, S, OCO, COO, OCOO, CONR, NRCO, OCONR, NRCOO, or NRCONR; R = H or C1-4 alkyl; A1, A2 = C1-30 spacer in which the C chain may be interrupted by ether O, thioether S, or nonadjacent imino or C1-4 alkylimino groups; and M = a mesogenic group. The invention also relates to compns. containing these compds. and compns. which can be obtained using the inventive method. The invention further relates to a method for printing and coating objects with these compds., with compns. containing these compds., or compns. which can be obtained using the inventive method or the objects thus printed or coated. The invention relates to the use of the compds. or compns. for producing optical devices or liquid-crystal dyes, as well as to liquid-crystal colorants and aqueous emulsions or dispersions containing the compds. or compns. and to pigments which can be obtained from the compds. or compns.

IT 215057-75-3P 215057-78-6P

RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(preparation of polymerizable liquid-crystal compds. for)

RN 215057-75-3 CAPLUS

1,4-Benzenedicarboxylic acid, 2-methyl-1,4-phenylene bis[4-[(1-oxo-2-propenyl)oxy]butyl] ester, mixt. with 4-chlorobutyl 2-propenoate and 6-chlorohexyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CN

CRN 215057-74-2 CMF C37.H36 O12

PAGE 1-B

CM 2

CRN 133123-02-1 CMF C9 H15 Cl O2

CM 3

CRN 2206-87-3 CMF C7 H11 Cl O2

RN 215057-78-6 CAPLUS CN Benzoic acid, 4-[[[4

Benzoic acid, 4-[[[4-[(1-oxo-2-propenyl)oxy]butoxy]carbonyl]oxy]-,
2-methyl-4-[[4-[[(pentyloxy)carbonyl]oxy]benzoyl]oxy]phenyl ester, mixt.
with 4-chlorobutyl 2-propenoate, 6-chlorohexyl 2-propenoate,
3-methyl-4-[[4-[((pentyloxy)carbonyl]oxy]benzoyl]oxy]phenyl
4-[[4-[(1-oxo-2-propenyl)oxy]butoxy]carbonyl]oxy]benzoate,
2-methyl-1,4-phenylene 4-[[[4-[(1-oxo-2-propenyl)oxy]butoxy]carbonyl]oxy]benzoate and 2-methyl-1,4-phenylene 4-[[(pentyloxy)carbonyl]oxy]benzoate
(9CI) (CA INDEX NAME)

CM 1

CRN 215057-77-5 CMF C35 H36 O12

CM 2

CRN 215057-76-4 CMF C35 H36 O12

PAGE 1-A

PAGE 1-B

CM 3

CRN 187585-64-4 CMF C37 H36 O14

PAGE 1-A

PAGE 1-B

CM 4

CRN 133123-02-1 CMF C9 H15 Cl O2

CM 5

CRN 52710-10-8 CMF C33 H36 O10

PAGE 1-A

PAGE 1-B

$$-(CH_2)_4-Me$$

CM

CRN 2206-87-3 CMF C7 H11 Cl O2

IT 123864-17-5P 125248-71-7P 132694-65-6P 132900-75-5P 142060-41-1P 157719-48-7P

172257-88-4P 172257-91-9P 172258-06-9P

215057-58-2P 215057-59-3P 215057-60-6P

215057-61-7P 215057-62-8P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(preparation of; preparation of polymerizable liquid-crystal compns. containing)

RN 123864-17-5 CAPLUS

Benzoic acid, 4-[[6-[(1-oxo-2-propenyl)oxy]hexyl]oxy]-, 1,4-phenylene CN ester (9CI) (CA INDEX NAME)

PAGE 1-A

RN 125248-71-7 CAPLUS

CN

Benzoic acid, 4-[[6-[(1-oxo-2-propenyl)oxy]hexyl]oxy]-,
2-methyl-1,4-phenylene ester (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

RN 132694-65-6 CAPLUS

CN Benzoic acid, 4-[4-[(1-oxo-2-propenyl)oxy]butoxy]-, 1,4-phenylene ester (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

RN 132900-75-5 CAPLUS

CN Benzoic acid, 4-[4-[(1-oxo-2-propenyl)oxy]butoxy]-, 2-methyl-1,4-phenylene ester (9CI) (CA INDEX NAME)

PAGE 1-B

RN 142060-41-1 CAPLUS

CN

Benzoic acid, 4-[[6-[(2-methyl-1-oxo-2-propenyl)oxy]hexyl]oxy]-, 1,4-phenylene ester (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

$$\begin{array}{c|c} & \text{O} & \text{CH}_2 \\ & \parallel & \parallel \\ & - & \text{(CH}_2)_6 - \text{O} - \text{C} - \text{C} - \text{Me} \end{array}$$

RN 157719-48-7 CAPLUS

CN Benzoic acid, 4-[[6-[(2-methyl-1-oxo-2-propenyl)oxy]hexyl]oxy]-, 2-methyl-1,4-phenylene ester (9CI) (CA INDEX NAME)

PAGE 1-A

$$\begin{array}{c|c} & \text{O} & \text{CH}_2 \\ & || & || \\ & - & \text{(CH}_2)_6 - \text{O} - \text{C} - \text{C} - \text{Me} \end{array}$$

RN 172257-88-4 CAPLUS

CN Benzoic acid, 4-[2-[(1-oxo-2-propenyl)oxy]ethoxy]-, 2-methoxy-1,4-phenylene ester (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

RN 172257-91-9 CAPLUS

CN Benzoic acid, 4-[4-[(1-oxo-2-propenyl)oxy]butoxy]-, 2-methoxy-1,4-phenylene ester (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

RN 172258-06-9 CAPLUS

CN Benzoic acid, 4-[2-[(1-oxo-2-propenyl)oxy]ethoxy]-, 2-methyl-1,4-phenylene ester (9CI) (CA INDEX NAME)

PAGE 1-B

RN 215057-58-2 CAPLUS

CN

Benzoic acid, 4-[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethoxy]-, 2-methyl-1,4-phenylene ester (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

$$\begin{array}{c|c} & \text{O} & \text{CH}_2 \\ & || & || \\ -\text{CH}_2-\text{CH}_2-\text{O}-\text{C}-\text{C}-\text{Me} \end{array}$$

RN 215057-59-3 CAPLUS

CN Benzoic acid, 4-[4-[(2-methyl-1-oxo-2-propenyl)oxy]butoxy]-, 2-methyl-1,4-phenylene ester (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

$$^{\circ}$$
 CH₂ $^{\circ}$ $^{\circ}$ $^{\circ}$ CH₂ $^{\circ}$ $^{\circ}$ $^{\circ}$ $^{\circ}$ CH₂ $^{\circ}$ $^{\circ$

RN 215057-60-6 CAPLUS

CN Benzoic acid, 4-[2-[(1-oxo-2-propenyl)oxy]ethoxy]-, 1,4-phenylene ester

PAGE 1-A

PAGE 1-B

RN 215057-61-7 CAPLUS

CN Benzoic acid, 4-[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethoxy]-, 1,4-phenylene ester (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

$$\begin{array}{c|c} & \text{O} & \text{CH}_2 \\ \parallel & \parallel \\ -\text{CH}_2-\text{CH}_2-\text{O}-\text{C}-\text{C}-\text{Me} \end{array}$$

RN 215057-62-8 CAPLUS

CN Benzoic acid, 4-[4-[(2-methyl-1-oxo-2-propenyl)oxy]butoxy]-, 1,4-phenylene ester (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

$$\begin{array}{c|c} & \text{O} & \text{CH}_2 \\ & || & || \\ - & \text{(CH}_2)_4 - \text{O-C-C-Me} \end{array}$$

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L38 ANSWER 3 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1998:624278 CAPLUS

DOCUMENT NUMBER: 129:209198

TITLE: Circular UV polarizer

INVENTOR(S): Coates, David; Jolliffe, Emma Jane; Nolan, Patrick

PATENT ASSIGNEE(S): Merck Patent G.m.b.H., Germany SOURCE: Brit. UK Pat. Appl., 29 pp.

CODEN: BAXXDU

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

	DAMENIM NO	WEND	D.3.000								
	PATENT NO.	KIND	DATE	APPLICATION NO.		DATE					
	GB 2315072	A1	19980121	CD 1007 12027		10050505					
	GB 2315072	B2		GB 1997-13927		19970701	<				
	US 5989461	A	19991123	US 1997-888363							
PRIC	RITY APPLN. INFO.:			EP 1996-110805	Α	19960704					
AB	Liquid crystal circ	ular UV	polarizers	based on polymerized	l me	sogens are	Э				
	described which are	produc	ed by curing	g a composition compr	risi	nga					
	mesogenic component	compri	sing ≥1 ach:	iral mesogenic		J					
	compds. having ≥1	polvmer	rizable end o	group attached							
	optionally via a sp	acer gr	oup to the	mesogenic core, a com	mon	ent					
	comprising >1 chira	l compo	le in such	an amount that the ma		CIIC					
	wavelength of refle	ation o	es. In such a	an amount that the ma	IXTIII	iuiii	-				
	waverength of refre	ection c	or the compos	sition is in the rang	ge 3	20-440 nm	, and a				
	photoinitiator or t	nermai	initiator.	Methods for producir	ıg l	inearly					
	polarized UV radiation using the polarizers, as well as their use in										
	spatial circular UV	' modula	itors, are al	lso described.		*					
${ t IT}$	182311-51-9 197663-	61-9 21	2180-04-6								
	RL: DEV (Device com	ponent	use); PEP (Physical, engineering	or	chemical					
	process); PROC (Process); USES (Uses)										
	(liquid crystal	circula	r UV polari:	zers based on polymer	·ize	d mesogens	=)				
D37	100011 51 0 63 77 77			on porymer		a mesogerr	• ,				

RN 182311-51-9 CAPLUS CN

Benzoic acid, 4-[[6-[(1-oxo-2-propenyl)oxy]hexyl]oxy]-, 2-methyl-1,4-phenylene ester, polymer with trans-4-(4propylcyclohexyl)phenyl 4-[[6-[(1-oxo-2-propenyl)oxy]hexyl]oxy]benzoate (9CI) (CA INDEX NAME)

CM 1

CRN 182311-45-1 CMF C31 H40 O5

Relative stereochemistry.

$$\begin{array}{c} \text{CH}_2 \\ \text{O} \\ \text{O} \end{array}$$

CM 2

CRN 125248-71-7 CMF C39 H44 O10

$$_{\text{H}_2\text{C}} = _{\text{CH}-\text{C}-\text{O}-\text{(CH}_2)}^{\text{O}}_{6} - _{\text{O}}^{\text{Me}}_{\text{C}-\text{O}} - _{\text{C}}^{\text{O}}_{\text{C}}^{\text{Me}}_{\text{O}}$$

PAGE 1-B

RN 197663-61-9 CAPLUS CN Benzoic acid, 4-[[6

Benzoic acid, 4-[[6-[(1-oxo-2-propenyl)oxy]hexyl]oxy]-, 2-methyl-1,4-phenylene ester, polymer with 4'-(2-methylbutyl)[1,1'-biphenyl]-4-yl 4-[[6-[(1-oxo-2-propenyl)oxy]hexyl]oxy]benzoate (9CI) (CA INDEX NAME)

CM 1

CRN 168904-02-7 CMF C33 H38 O5

$$\begin{array}{c} \text{Me} \\ | \\ \text{Et-CH-CH}_2 \\ \text{O-C} \end{array} \begin{array}{c} \text{O-(CH}_2)_6 - \text{O-C-CH} \\ \text{CH}_2 \\ \text{O-C} \end{array}$$

CM 2

CRN 125248-71-7 CMF C39 H44 O10

PAGE 1-A

PAGE 1-B

RN 212180-04-6 CAPLUS

CN Benzoic acid, 4-[3-[(1-oxo-2-propenyl)oxy]propoxy]-, 2-methyl-1,4-phenylene ester, polymer with 1,4-phenylene bis[4-[[3-methyl-6-[(1-oxo-2-

propenyl)oxy]hexyl]oxy]benzoate] (9CI) (CA INDEX NAME)

CM 1

CRN 174063-87-7 CMF C33 H32 O10

PAGE 1-A

PAGE 1-B

CM 2

CRN 150809-89-5 C40 H46 O10 CMF

PAGE 1-B

L38 ANSWER 4 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

1998:608948 CAPLUS

DOCUMENT NUMBER:

129:203403

TITLE:

SOURCE:

Thermochromic polymerizable

mesogenic composition containing both chiral

and achiral polymerizable mesogenic

compounds and a photoinitiator, anisotropic polymers

therefrom, and colored films

Jolliffe, Emma Jane; Coates, David

PATENT ASSIGNEE(S):

Merck Patent G.m.b.H., Germany

Brit. UK Pat. Appl., 60 pp. CODEN: BAXXDU

DOCUMENT TYPE:

INVENTOR(S):

Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 2315760	A1	19980211	GB 1997-15766	19970725 <
GB 2315760	B2	20010110		
US 6117920	Α	20000912	US 1999-350993	19990712
US 6316066	B1	20011113	US 2000-522708	20000310
PRIORITY APPLN. INFO.:			EP 1996-112001	A 19960725
			US 1997-900533	B1 19970725
			US 1999-350993	A3 19990712

AB The title compns., optionally containing a dye, are useful for optical data storage, photomasks, decorative pigments, cosmetics, security applications, active/passive optical elements such as polarizers or retarders, color filters, scattering displays, or adhesives. Polymer films of different color are prepared by filling a liquid crystal mixture of CH2:CHCO2(CH2)60-p-C6H4CO2-p-C6H4-p-C6H9C3H7 16.5, CH2:CHCO2(CH2)30-p-C6H4-CO2-p-C6H4-p-C6H9C3H7 9.5, CH2:CHCCO2(CH2)60-p-C6H4CO2-p-C6H4CH2CH(Me)Et 45.0, CH2:CHCO2(CH2)6-p-C6H4CO2-p-C6H4-p-C6H4CCH2CH(Me)Et 20.0, 1,4-[CH2:CHCO2(CH2)30-p-C6H4CO2]2-3-MeC6H3 10.0% between two glass plates and exposing to UV light.

IT 212260-13-4P 212260-14-5P

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(thermochromic polymerizable mesogenic composition containing both chiral and achiral polymerizable

mesogenic compds. for anisotropic polymers used in preparing multi-color images)

212260-13-4 CAPLUS

CN Benzoic acid, 4-[[6-[(1-oxo-2-propenyl)oxy]hexyl]oxy]-,

4'-(2-methylbutyl)[1,1'-biphenyl]-4-yl ester, polymer with

4-(2-methylbutyl)phenyl 4-[[6-[(1-oxo-2-propenyl)oxy]hexyl]oxy]benzoate, 2-methyl-1,4-phenylene bis[4-[3-[(1-oxo-2-propenyl)oxy]propoxy]benzoate],

trans-4-(4-propylcyclohexyl)phenyl 4-[[6-[(1-oxo-2-

propenyl)oxy]hexyl]oxy]benzoate and trans-4-(4-propylcyclohexyl)phenyl
4-[3-[(1-oxo-2-propenyl)oxy]propoxy]benzoate (9CI) (CA INDEX NAME)

CM 1

RN

CRN 196881-71-7 CMF C28 H34 O5

Relative stereochemistry.

CM 2

CRN 182311-45-1 CMF C31 H40 O5

Relative stereochemistry.

CM 3

CRN 174063-87-7 CMF C33 H32 O10

PAGE 1-A

PAGE 1-B

CM 4

CRN 168904-02-7 CMF C33 H38 O5

$$\begin{array}{c}
\text{Me} \\
\downarrow \\
\text{Et-CH-CH}_2
\end{array}$$

CM 5

CRN 168903-96-6 CMF C27 H34 O5

$$_{\text{H}_2\text{C}} = _{\text{CH}-\text{C}-\text{O}-\text{(CH}_2)}^{\text{O}}_{6} - _{\text{O}}^{\text{O}}_{6} - _{\text{O}}^{\text{O}}_{6} - _{\text{O}}^{\text{O}}_{6} - _{\text{C}}^{\text{H}_2} - _{\text{CH}-\text{Et}}^{\text{Me}}_{6}$$

212260-14-5 CAPLUS
Benzoic acid, 4-[[6-[(1-oxo-2-propenyl)oxy]hexyl]oxy]-,
4'-(2-methylbutyl)[1,1'-biphenyl]-4-yl ester, polymer with
4-(2-methylbutyl)phenyl 4-[[6-[(1-oxo-2-propenyl)oxy]hexyl]oxy]benzoate,
1,4-phenylene bis[4-[[11-[(1-oxo-2-propenyl)oxy]undecyl]oxy]benzoate],
trans-4-(4-propylcyclohexyl)phenyl 4-[[6-[(1-oxo-2-propenyl)oxy]hexyl]oxy]benzoate and trans-4-(4-propylcyclohexyl)phenyl
4-[3-[(1-oxo-2-propenyl)oxy]propoxy]benzoate (9CI) (CA INDEX NAME)

CM 1

RN

CN

CRN 196881-71-7 CMF C28 H34 O5

Relative stereochemistry.

CM 2

CRN 182311-45-1 CMF C31 H40 O5

Relative stereochemistry.

CM 3

CRN 168904-02-7 CMF C33 H38 O5

$$\begin{array}{c}
\text{Me} \\
\text{Et-CH-CH}_2
\end{array}$$

CM 4

CRN 168903-96-6 CMF C27 H34 O5

$$H_2C = CH - C - O - (CH_2)_6 - O$$
 $CH_2 - CH - Et$

CM 5

CRN 132900-74-4 CMF C48 H62 O10

$$H_2C = CH - C - O - (CH_2)_{11} - O$$

PAGE 1-B

$$\stackrel{\circ}{-}$$
 (CH₂) $_{11}$ $\stackrel{\circ}{-}$ C $\stackrel{\circ}{-}$ CH $\stackrel{=}{-}$ CH $_2$

L38 ANSWER 5 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

1998:353083 CAPLUS

DOCUMENT NUMBER:

129:47742

TITLE:

Polymerizable oligomesogenic compounds

INVENTOR(S):

Etzbach, Karl-Heinz; Schuhmacher, Peter; Siemensmeyer,

Karl

PATENT ASSIGNEE(S):

BASF A.-G., Germany

SOURCE:

Ger. Offen., 12 pp.

CODEN: GWXXBX

DOCUMENT TYPE:

Patent

LANGUAGE:

German

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND DATE	APPLICATION NO.	DATE
	A1 19980528	DE 1996-19649056	19961127 <
CA 2272103	AA 19980604	CA 1997-2272103	19971111 <
		WO 1997-EP6289	
W: AL, AM, AU,	AZ, BG, BR, BY,	CA, CN, CZ, GE, HU, IL,	JP, KG, KR.
KZ, LT, LV,	MD, MX, NO, NZ,	PL, RO, RU, SG, SI, SK,	TJ, TM, TR,
UA, US, AM,	AZ, BY, KG, KZ,	MD, RU, TJ, TM	, , , , , , , , , , , , , , , , , , , ,
RW: AT, BE, CH,	DE, DK, ES, FI,	FR, GB, GR, IE, IT, LU,	MC, NL, PT, SE
AU 9854812	A1 19980622	AU 1998-54812	19971111 <
		EP 1997-951170	
R: DE, FR, GB,			
CN 1245484	A 20000223	CN 1997-181557	19971111
JP 2001505879	T2 20010508	JP 1998-524205	19971111

KR 2000057240 A 20000915 KR 1999-704610 19990525 US 6335462 B1 20020101 US 1999-308634 19990527 PRIORITY APPLN. INFO.: DE 1996-19649056 A 19961127 WO 1997-EP6289 W 19971111

OTHER SOURCE(S): MARPAT 129:47742

The compds. have the general formula X[Y1A1Y2MY3A2Z]n, where X = a Si-free n-bonded central unit; A1,A2 = single bond or spacer; Y1-3 = single bond, O, S, CO, OCO, COO, OCOO, CON(R), (R)NCO, COS, or SCO; M = mesogenic group; Z = polymerizable group; n = 2-6; R = H or C1-4 alkyl; and MY3A2Z can be a cholesterol residue. The compds. are useful as orientation layers for liquid-crystal materials; photocurable adhesives; monomers for preparation of liquid-crystal networks; base materials for preparation of chiral dopable polymerizable liquid-crystal systems; polymerizable matrix monomers for polymer-dispersed displays; base materials for polymerizable liquid-crystal materials for optical devices, e.g. polarizers, cutoff plates, or lenses; or in combination with low-mol.-weight polymerizable liquid-crystal compds. as film formers.

IT 208107-99-7P 208108-00-3P

RL: SPN (Synthetic preparation); PREP (Preparation)

(for use in liquid-crystal materials and displays and in optical devices)

RN 208107-99-7 CAPLUS CN [1,1'-Biphenvl]-4-ca

[1,1'-Biphenyl]-4-carboxylic acid, 4'-[2-[(1-oxo-2-propenyl)oxy]ethoxy]-, sulfonylbis[4-(methoxycarbonyl)-2,1-phenylene] ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 208107-95-3 CMF C52 H42 O16 S

PAGE 1-A

$$H_2C = CH - C - O - CH_2 - CH_2 - O$$
 $H_2C = CH - C - O - CH_2 - CH_2 - O$
 $H_2C = CH - C - O - CH_2 - CH_2 - O$

PAGE 1-B

CM 1

CRN 208107-93-1 CMF C52 H42 O14 S

PAGE 1-A

PAGE 1-B

= CH₂

PAGE 1-A O

$$H_2C = CH - C - O - (CH_2)_6 - O$$
 $C - O - (CH_2)_8 - O - C$

RN 208107-87-3 CAPLUS

CN

Benzoic acid, 4-[[4-[(1-oxo-2-propenyl)oxy]benzoyl]oxy]-,
9-oxo-9-[4-[[4-[(1-oxo-2-propenyl)oxy]benzoyl]oxy]phenoxy]nonyl ester
(9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

RN 208107-88-4 CAPLUS

CN Benzoic acid, 4-[[4-[(1-oxo-2-propenyl)oxy]benzoyl]oxy]-,
7-oxo-7-[4-[[4-[(1-oxo-2-propenyl)oxy]benzoyl]oxy]phenoxy]heptyl ester
(9CI) (CA INDEX NAME)

PAGE 1-A

$$H_2C = CH - C - O$$
 $C - O$
 $C - O$

PAGE 1-B

RN 208107-89-5 CAPLUS

CN 1,3,5-Benzenetricarboxylic acid, tris[6-[4-[[[4'-[2-[(1-oxo-2-propenyl)oxy]ethoxy][1,1'-biphenyl]-4-yl]oxy]carbonyl]phenoxy]hexyl] ester (9CI) (CA INDEX NAME)

$$H_2C = CH - C - O - CH_2 - CH_2 - O$$
 $O - CH_2 - CH_2 - O$
 $O - CH_2 - O$
 $O - CH_2 - O$

PAGE 1-B

PAGE 1-C

PAGE 2-B

RN 208107-91-9 CAPLUS

CN 1,3,5-Benzenetricarboxylic acid, tris[6-[4-[[4-[2-[(1-oxo-2-propenyl)oxy]ethoxy]benzoyl]oxy]phenoxy]hexyl] ester (9CI) (CA INDEX NAME)

PAGE 1-A
$$H_{2}C = CH - C - O - CH_{2} - CH_{2} - O$$

$$C - O - (CH_{2})_{6} - O - C$$

208107-92-0 CAPLUS
[1,1'-Biphenyl]-4-carboxylic acid, 4'-[2-[(1-oxo-2-propenyl)oxy]ethoxy]-,
4-[[6-[[[4'-[2-[(1-oxo-2-propenyl)oxy]ethoxy][1,1'-biphenyl]-4yl]carbonyl]oxy]hexyl]oxy]phenyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

$$H_2C = CH - C - O - CH_2 - CH_2 - O$$
 $C - O - (CH_2)_6 - O$

PAGE 1-B

RN 208107-93-1 CAPLUS
CN [1,1'-Biphenyl]-4-carboxylic acid, 4'-[2-[(1-oxo-2-propenyl)oxy]ethoxy]-,
thiobis[4-(methoxycarbonyl)-2,1-phenylene] ester (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

RN

CN

RN 208107-95-3 CAPLUS CN

[1,1'-Biphenyl]-4-carboxylic acid, 4'-[2-[(1-oxo-2-propenyl)oxy]ethoxy]-, sulfonylbis[4-(methoxycarbonyl)-2,1-phenylene] ester (9CI) (CA INDEX

PAGE 1-A

$$H_2C = CH - C - O - CH_2 - CH_2 - O$$
 $H_2C = CH - C - O - CH_2 - CH_2 - O$

PAGE 1-B

— оме

CN

IT 208107-94-2P 208107-96-4P 208107-97-5P 208107-98-6P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of, for use in liquid-crystal materials and displays and in optical devices)

RN208107-94-2 CAPLUS

[1,1'-Biphenyl]-4-carboxylic acid, 4'-[2-[(1-oxo-2-propenyl)oxy]ethoxy]-,

4-[[6-[[[4'-[2-[(1-oxo-2-propenyl)oxy]ethoxy][1,1'-biphenyl]-4-

yl]carbonyl]oxy]hexyl]oxy]phenyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 208107-92-0 CMF C48 H46 O11

PAGE 1-A

RN 208107-96-4 CAPLUS

Benzoic acid, 4-[[6-[(1-oxo-2-propenyl)oxy]hexyl]oxy]-,
1,8-octanediylbis(oxycarbonyl-4,1-phenylene) ester, homopolymer (9CI) (CA
INDEX NAME)

CM 1

CN

CRN 208107-86-2 CMF C54 H62 O14

PAGE 1-A

PAGE 1-B

RN 208107-97-5 CAPLUS CN 1,3,5-Benzenetricar

1,3,5-Benzenetricarboxylic acid, tris[6-[4-[[[4'-[2-[(1-oxo-2-propenyl)oxy]ethoxy][1,1'-biphenyl]-4-yl]oxy]carbonyl]phenoxy]hexyl]ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 208107-89-5 CMF C99 H96 O24

PAGE 1-A

PAGE 1-C

PAGE 2-A

RN 208107-98-6 CAPLUS

1,3,5-Benzenetricarboxylic acid, tris[6-[4-[[4-[2-[(1-oxo-2-propenyl)oxy]ethoxy]benzoyl]oxy]phenoxy]hexyl] ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CN

CRN 208107-91-9 CMF C81 H84 O24

PAGE 1-A

$$H_2C = CH - C - O - CH_2 - CH_2 - O$$
 $C - O - (CH_2)_6 - O - C$

PAGE 1-C

PAGE 2-A

PAGE 2-B

L38 ANSWER 6 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1998:105969 CAPLUS

DOCUMENT NUMBER: 128:186553

TITLE: Combination of optical elements for display device INVENTOR(S):

Verrall, Mark; Ward, Jeremy; Hanmer, James; Coates,

David

PATENT ASSIGNEE(S): Merck Patent G.m.b.H., Germany; Verrall, Mark; Ward,

Jeremy; Hanmer, James; Coates, David

SOURCE: PCT Int. Appl., 53 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE		
WO 9804651 W: DE, GB, JP,	A1	19980205	WO 1997-EP3676	-	19970711 <		
GB 2331813 GB 2331813	A1 B2	19990602 20000607	GB 1999-1706		19970711		
DE 19781781	T	19990617	DE 1997-19781781		19970711		
JP 2001500276	T2	20010109	JP 1998-508422		19970711		
KR 2000029549	A	20000525	KR 1999-700607		19990125		
US 6544605	B1	20030408	US 1999-230335		19990125		
US 2003190437	A1	20031009	US 2003-367722		20030219		
US 2005142301	A1	20050630	US 2004-972147		20041025		
PRIORITY APPLN. INFO.:			EP 1996-112100	Α	19960726		
			WO 1997-EP3676	W	19970711		
			US 1999-230335	A3	19990125		
			US 2003-367722	В1	20030219		
35 63							

The invention relates to a combination of optical elements comprising at AB least one optical retardation film and at least one broadband reflective polarizer, characterized in that the optical retardation film comprises at least one layer of an anisotropic polymer material having an optical symmetry axis substantially parallel to the plane of the layer, said optical retardation film being obtainable by polymerization of a mixture of a polymerizable mesogenic material comprising (a) at least one reactive mesogen having at least one polymerizable functional group, (b) an initiator, (c) optionally a nonmesogenic compound having two or more polymerizable functional groups, and (d) optionally a stabilizer and relates to an optical retardation film used in said combination of optical elements and to a liquid crystal display comprising said combination of optical elements.

IT 174063-87-7

RN

RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)

(liquid-crystal display devices with retardation films prepared from photopolymerizable compns. containing)

174063-87-7 CAPLUS

Benzoic acid, 4-[3-[(1-oxo-2-propenyl)oxy]propoxy]-, 2-methyl-1,4-CNphenylene ester (9CI) (CA INDEX NAME)

PAGE 1-A

REFERENCE COUNT:

THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L38 ANSWER 7 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN

5

ACCESSION NUMBER: 1998:55642 CAPLUS

DOCUMENT NUMBER: 128:134449

TITLE: Preparation of 3,6-dihydroxyfuro[3,2-b] furan diesters

as chiral dopants

INVENTOR(S): Parri, Owain; Nolan, Patrick; Farrand, Louise; May,

Alison

PATENT ASSIGNEE(S): Merck Patent G.m.b.H., Germany; Parri, Owain; Nolan,

Patrick; Farrand, Louise; May, Alison

SOURCE: PCT Int. Appl., 38 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

LANGUAGE:

GI

Patent English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	WO 9800428 W: CN, DE, GB,	A1 JP, KR	19980108 , US	WO 1997-EP3167	19970618 <
	GB 2329636	A1	19990331	GB 1998-28214	19970618
	GB 2329636	B2	20000719		
	CN 1223657	Α	19990721	CN 1997-195878	19970618
	CN 1103776	В	20030326		
	DE 19781752	${f T}$	19990902	DE 1997-19781752	19970618
	JP 2000515496	T2	20001121	JP 1998-503799	19970618
	GB 2314839	A1	19980114	GB 1997-13931	19970701 <
	GB 2314839	B2	19990929	·	
	US 6217792	B1	20010417	US 1998-214387	19981230
	KR 2000022497	Α	20000425	KR 1998-710938	19981231
	CN 1420382	A	20030528	CN 2002-132214	20020830
P	RIORITY APPLN. INFO.:			EP 1996-110578 A	19960701
				WO 1997-EP3167 W	19970618
O'	THER SOURCE(S):	MARPAT	128:134449		

B The invention relates to ch

 $O_2C-MG^2-X^2-R^2$

AB The invention relates to chiral dopants of the formula [I; R1, R2 = straight-chain or branched C≤25 alkyl which may be unsubstituted or mono- poly-substituted by halo or cyano, it being also possible for one or more non-adjacent CH2 groups to be replaced, in each case independently fro one another, by O, S, NH, NMe, CO, CO2, O2C, O2C-O, S-CO, CO-S, or C.tplbond.C, X1, X2 = O, S, CO, CO2, O2C, O2C-O. S-CO, CO-S or a single bond; MG1, MG2 = a mesogenic or mesogenity supporting group of formula (A1-Z)m-A2; wherein Z = CO2, O2C, CH2CH2, OCH2, CH2O, CH:CH, CH:CHCO2, O2CCH:CH, C.tplbond.C, a single bond; A1, A2 = (un)substituted

1,4-phenylene (wherein one or more CH groups may be replaced by N), 1,4-cyclohexylene (wherein one or two nonadjacent CH2 groups may be replaced by O and/or S), 1,4-cyclohexenylene, 1,4-bicyclo[2,2,2]octylene, piperidin-1,4-diyl, naphthalene-2,6-diyl, decahydronaphthalene-2,6-diyl, or 1,2,3,4-tetrahydronaphthalene-2,6-diyl]. The invention also relates to liquid crystalline materials comprising at least one chiral dopant of formula I and optionally at least one polymerizable mesogenic compound The invention furthermore relates to the use of such liquid crystalline materials for the preparation of polymer films with a chiral liquid crystalline phase, for active and passive optical elements or color filters and for liquid crystal displays, for example STN, TN, AMD-TN, temperature compensation, guest-host or phase change displays, or polymer free or polymer stabilized cholesteric texture (PFCT, PSCT) displays. The invention also relates to cholesteric liquid crystal displays comprising liquid crystalline materials comprising chiral dopants of formula I and to polymer films with a chiral liquid crystalline phase obtainable by (co)polymerizing a liquid crystalline material comprising at least one chiral of formula I and at least one polymerizable compound Thus, I (R1-X1-MG1 = MG2-X2-R2 = Q), which was prepared from I (R1-X1-MG1 = MG2-X2-R2 = H), showed a very high helical twisting power of 75 μ m-1, determined in the com. available nematic liquid crystal mixture E 063 (Merck Ltd., Poole, UK) as a host mixture, which had the following properties clearing point 78.5°, birefringence -.224, dielec. anisotropy +14.6, and viscosity (at 20°) 38 mm2/s.

201794-12-9P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(bright green cholesteric polymer film; preparation of dihydroxyfuro[3,2b] furan diesters as chiral dopants)

201794-12-9 CAPLUS

D-Glucitol, 1,4:3,6-dianhydro-, bis[4-[(4-methoxybenzoyl)oxy]benzoate], mixt. with 2-methyl-1,4-phenylene bis[4-[3-[(1-oxo-2propenyl)oxy]propoxy]benzoate] homopolymer (9CI) (CA INDEX NAME)

CM 1

RN

CN

CRN 197663-64-2 CMF C36 H30 O12.

Absolute stereochemistry.

PAGE 1-A

CM

CRN 199930-19-3 CMF (C33 H32 O10)x CCI PMS

3

CM

CRN 174063-87-7 C33 H32 O10

PAGE 1-A

$$H_2C = CH - C - O - (CH_2)_3 - O$$

Me

 $C - O$
 $C - O$

PAGE 1-B

REFERENCE COUNT:

6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L38 ANSWER 8 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

1997:640848 CAPLUS

DOCUMENT NUMBER:

127:324503

TITLE:

Liquid-crystal display device

INVENTOR(S):

Coates, David; Greenfield, Simon; Goulding, Mark; Hanmer, James; Marden, Shirley; Parri, Owain Llyr

PATENT ASSIGNEE(S): Merck Patent G.m.b.H., Germany

SOURCE:

LANGUAGE:

PCT Int. Appl., 76 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

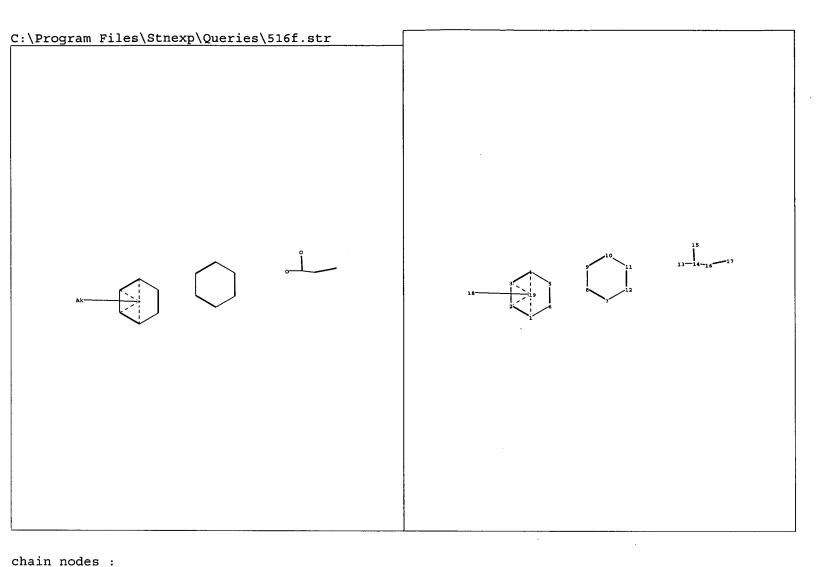
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PATENT NO.
                         KIND
                                DATE
                                            APPLICATION NO.
                                                                   DATE
                                            -----
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     WO 9735219
                         A1
                                19970925
                                            WO 1997-EP844
                                                                   19970221 <--
         W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB,
             GE, HU, JP, KE, KG, KP, KR, KZ, LK, LT, LU, LV, MD, MG, MN, MW,
             NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, US, UZ, VN
         RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR,
             IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML,
             MR, NE, SN, TD, TG
     AU 9717938
                                19971010
                                            AU 1997-17938
                          A1
                                                                   19970221 <--
     EP 888565
                                19990107
                          A1
                                            EP 1997-903353
                                                                   19970221
         R: DE, FR, GB, NL
     JP 2000507362
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                                            JP 1997-533071
                                                                   19970221
     TW 455727
                          В
                                20010921
                                            TW 1997-86103976
                                                                   19970326
     US 6217955
                          Вl
                                20010417
                                            US 1998-117710
                                                                   19980804
     US 6669865
                          В1
                                20031230
                                            US 2000-696282
                                                                   20001026
PRIORITY APPLN. INFO.:
                                            EP 1996-104332
                                                                A 19960319
                                            WO 1997-EP844
                                                                W 19970221
                                            US 1998-117710
                                                                A3 19980804
     The invention relates to a liquid-crystal display device comprising a liquid
     crystal cell and at least one reflective polarizer or a polarizer
     combination comprising at least one reflective polarizer as a means to
     generate circular polarized light, said reflective polarizer comprising an
     optically active layer of an anisotropic polymer material with a helically
     twisted planar mol. orientation, wherein the material is oriented so that
     the axis of the mol. helix extends transversely to the layer, in which the
     pitch of the mol. helix is varied in such a manner that the difference
     between the maximum pitch and the min. pitch is at least 100 nm,
     characterized in that said reflective polarizer is obtainable by copolymn.
     of a mixture of a chiral polymerizable mesogenic
     material comprising at least one achiral polymerizable
     mesogenic compound having at least one polymerizable
     functional group, at least one chiral polymerizable
     mesogenic compound having one polymerizable functional
     group and/or at least one nonpolymerizable chiral mesogenic
     compound, an initiator, optionally a nonmesogenic compound having at least one
     polymerizable functional group, optionally a dye and, optionally a
     stabilizer. The invention also relates to methods of manufacturing such a
     reflective polarizer. The invention further relates to a mixture of a
     chiral polymerizable mesogenic material used for
     manufacturing such a reflective polarizer.
     197663-61-9 197663-62-0 197663-63-1
     197663-65-3 197663-67-5 197663-68-6
     197663-69-7 197663-70-0 197663-71-1
     197663-72-2
     RL: DEV (Device component use); POF (Polymer in formulation); TEM
     (Technical or engineered material use); USES (Uses)
        (liquid-crystal display device polarizing film preparation using
        photopolymerizable compns. containing)
RN
     197663-61-9 CAPLUS
     Benzoic acid, 4-[[6-[(1-oxo-2-propenyl)oxy]hexyl]oxy]-
CN
     2-methyl-1,4-phenylene ester, polymer with 4'-(2-methylbutyl)[1,1'-
     biphenyl]-4-yl 4-[[6-[(1-oxo-2-propenyl)oxy]hexyl]oxy]benzoate (9CI)
     INDEX NAME)
     CM
          1
```

CRN

CMF

168904-02-7

C33 H38 O5



```
13 14 15 16 17 18

ring nodes:

1 2 3 4 5 6 7 8 9 10 11 12

chain bonds:

13-14 14-15 14-16 16-17

ring bonds:

1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12

exact/norm bonds:

13-14 14-15

exact bonds:

14-16 16-17

normalized bonds:

1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12
```

Match level:
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:Atom 13:CLASS 14:CLASS 15:CLASS 16:CLASS 17:CLASS 18:CLASS 19:CLASS

RN 187585-84-8 CAPLUS

CN

Benzoic acid, 4-[[[4-[(1-oxo-2-propenyl)oxy]butoxy]carbonyl]oxy]-, 4-methylphenyl ester (9CI) (CA INDEX NAME)

RN 187585-85-9 CAPLUS

CN Benzoic acid, 4-[[[2-[(1-oxo-2-propenyl)oxy]ethoxy]carbonyl]oxy]-, 4-octylphenyl ester (9CI) (CA INDEX NAME)

$$H_2C = CH - C - O - CH_2 - CH_2 - O - C - O$$
 (CH₂)₇-Me

RN 187585-86-0 CAPLUS

CN Benzoic acid, 4-[[[4-[(1-oxo-2-propenyl)oxy]butoxy]carbonyl]oxy]-, 4-octylphenyl ester (9CI) (CA INDEX NAME)

$$H_2C = CH - C - O - (CH_2)_4 - O - C - O$$
 $CH_2 = CH - C - O - (CH_2)_4 - O - C - O$
 $CH_2 = CH - C - O - (CH_2)_4 - O - C - O$
 $CH_2 = CH - C - O - (CH_2)_4 - O - C - O$

187585-87-1 CAPLUS

RN

CN Benzoic acid, 4-[[[4-[(1-oxo-2-propenyl)oxy]butoxy]carbonyl]oxy]-, 4-nonylphenyl ester (9CI) (CA INDEX NAME)

$$H_2C = CH - C - O - (CH_2)_4 - O - C - O$$
 $CH_2 = CH - C - O - (CH_2)_4 - O - C - O$
 $CH_2 = CH - C - O - (CH_2)_8 - Me$

RN 187585-88-2 CAPLUS

CN Benzoic acid, 4-[[[4-[(1-oxo-2-propenyl)oxy]butoxy]carbonyl]oxy]-,
4-acetylphenyl ester (9CI) (CA INDEX NAME)

L10 ANSWER 28 OF 28 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1989:213473 CAPLUS

DOCUMENT NUMBER: 110:213473

Synthesis and characterization of liquid-crystalline TITLE:

polyacrylates and polymethacrylates containing benzyl

ether- and diphenylethane-based mesogens

AUTHOR (S): Hsu, Chain S.; Percec, Virgil

CORPORATE SOURCE: Dep. Macromol. Sci., Case West. Reserve Univ.,

Cleveland, OH, 44106, USA

Journal of Polymer Science, Part A: Polymer Chemistry SOURCE:

(1989), 27(2), 453-66

CODEN: JPACEC; ISSN: 0887-624X

DOCUMENT TYPE:

Journal

English LANGUAGE:

The synthesis and radical polymerization of a series of acrylates and methacrylates containing p-cyanophenyl-p-hydroxybenzyl ether, p-methoxyphenyl-p-hydroxybenzyl ether, and 1-(p-cyanophenyl)-2-(phydroxyphenyl) ethane groups attached to the polymerizable group through aliphatic spacers containing 11 and 6 methylenic units is described. polymers were characterized by DSC and optical polarization microscopy. All polymers exhibited enantiotropic mesomorphism. Low-mol.-weight compds. based on benzyl ether or di-Ph ethane units exhibit only monotropic or virtual transitions. This demonstrates that the "polymer effect" stabilizes mesophases obtained from "mesogenic units" which do not contain rigid interconnecting groups. 120603-05-6P 120603-06-7P 120603-07-8P

TΤ 120603-08-9P 120603-09-0P 120603-10-3P 120603-11-4P 120618-89-5P

> RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and polymerization of)

RN120603-05-6 CAPLUS

CN2-Propenoic acid, 2-methyl-, 11-[4-[(4-cyanophenoxy)methyl]phenoxy]undecyl ester (9CI) (CA INDEX NAME)

RN120603-06-7 CAPLUS

CN2-Propenoic acid, 11-[4-[(4-cyanophenoxy)methyl]phenoxy]undecyl ester (9CI) (CA INDEX NAME)

RN 120603-07-8 CAPLUS

2-Propenoic acid, 2-methyl-, 11-[4-[(4-methoxyphenoxy)methyl]phenoxy]undec CN yl ester (9CI) (CA INDEX NAME)

RN 120603-08-9 CAPLUS

CN2-Propenoic acid, 2-methyl-, 11-[4-[2-(4-cyanophenyl)ethyl]phenoxy]undecyl ester (9CI) (CA INDEX NAME)

$$H_2^C O CH_2 - CH_2 - CH_2$$

Me-C-C-O-(CH₂)₁₁-O

CN

RN 120603-09-0 CAPLUS

CN 2-Propenoic acid, 11-[4-[2-(4-cyanophenyl)ethyl]phenoxy]undecyl ester (9CI) (CA INDEX NAME)

RN 120603-10-3 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 6-[4-[2-(4-cyanophenyl)ethyl]phenoxy]hexyl ester (9CI) (CA INDEX NAME)

$$H_2C$$
 O CH_2-CH_2 CH_2-

RN 120603-11-4 CAPLUS

CN 2-Propenoic acid, 6-[4-[2-(4-cyanophenyl)ethyl]phenoxy]hexyl ester (9CI) (CA INDEX NAME)

RN 120618-89-5 CAPLUS

CN 2-Propenoic acid, 11-[4-[(4-methoxyphenoxy)methyl]phenoxy]undecyl ester (9CI) (CA INDEX NAME)

$$_{\text{H}_2\text{C}} = _{\text{CH}-\text{C}-\text{O}-\text{(CH}_2)} _{11} - _{\text{O}}$$

IT 120619-40-1P 120619-41-2P 120619-42-3P 120619-43-4P 120619-44-5P 120619-45-6P

120619-46-7P 120619-47-8P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of liquid-crystalline)

120619-40-1 CAPLUS

2-Propenoic acid, 2-methyl-, 11-[4-[(4-cyanophenoxy)methyl]phenoxy]undecylester, homopolymer (9CI) (CA INDEX NAME)

CM 1

RN

CN

CRN 120603-05-6 CMF C29 H37 N O4

$$H_{2}C$$
 O
 $Me-C-C-O-(CH_{2})_{11}-O$
 $CH_{2}-O$
 CN

RN 120619-41-2 CAPLUS

CN 2-Propenoic acid, 11-[4-[(4-cyanophenoxy)methyl]phenoxy]undecyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 120603-06-7 CMF C28 H35 N O4

120619-42-3 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 11-[4-[(4-methoxyphenoxy)methyl]phenoxy]undec yl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

RN

RN

CRN 120603-07-8 CMF C29 H40 O5

120619-43-4 CAPLUS

CN 2-Propenoic acid, 11-[4-[(4-methoxyphenoxy)methyl]phenoxy]undecyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 120618-89-5 CMF C28 H38 O5

RN 120619-44-5 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 11-[4-[2-(4-cyanophenyl)ethyl]phenoxy]undecyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 120603-08-9 CMF C30 H39 N O3

$$^{\text{H}_2\text{C}}_{\text{Me}-\text{C}-\text{C}-\text{O}-\text{(CH}_2)_{11}-\text{O}}$$
 $^{\text{CH}_2-\text{CH}_2-\text{CH}_2}_{\text{CN}}$

RN · 120619-45-6 CAPLUS

CN 2-Propenoic acid, 11-[4-[2-(4-cyanophenyl)ethyl]phenoxy]undecyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 120603-09-0 CMF C29 H37 N O3

RN 120619-46-7 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 6-[4-[2-(4-cyanophenyl)ethyl]phenoxy]hexyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 120603-10-3 CMF C25 H29 N O3

$$H_2$$
C O CH_2 CH2 CH_2 CN

120619-47-8 CAPLUS

CN 2-Propenoic acid, 6-[4-[2-(4-cyanophenyl)ethyl]phenoxy]hexyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 120603-11-4 CMF C24 H27 N O3

RN

	(FILE	'HOME' ENTERED AT 13:22:52 ON 31 JAN 2006)
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L2	FILE	'REGISTRY' ENTERED AT 13:23:48 ON 31 JAN 2006 50 S L1
L3 L4	FILE	'CAPLUS' ENTERED AT 13:23:49 ON 31 JAN 2006 36 S L2 4 S L3 AND PY<1999 S L1
L5	FILE	'REGISTRY' ENTERED AT 13:27:29 ON 31 JAN 2006 91811 S L1 FULL
L6 L7 L8 L9		'CAPLUS' ENTERED AT 13:27:34 ON 31 JAN 2006 38730 S L5 FULL 24307 S L6 AND PY<1999 2926 S L7 AND POLYMERIZ? 1227 S L7 AND POLYMERIZABLE
T.1 A		20 C IO AND MECOCENIC